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Attorney Docket No.: 02307W-131410US Client Reference No.: 2003-170-2

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22613-1450

on December 22, 2005

TOWNSEND and TOWNSEND and CREW LLP

By: Deanne Deanne



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Kit S. Lam

Application No.: 10/815,468

Filed: March 31, 2004

For: PREPARATION AND APPLICATION OF LIGAND-BIOPOLYMER CONJUGATES Examiner: Melanie J. Yu

Art Unit: 1641

INFORMATION DISCLOSURE

STATEMENT UNDER 37 CFR §1.97 and

§1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the non-patent references [in compliance with the requirements of 1287 OG 163] are enclosed herewith, except for reference No. 8, which is a textbook and, as such, no copy of this reference is enclosed. Also enclosed is a copy of the International Search Report for the corresponding International Application No. PCT/US04/10138.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

PATENT

Kit S. Lam

Application No.: 10/815,468

Page 2

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Mark H. Hopkins, Ph.D.

Reg. No. 44,775

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Substitute for form 1449A/PTQ

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## INFORMATION DISCLOSURES STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

	Complete if Known
Application Number	10/815,468
Filing Date	March 31, 2004
First Named Inventor	Lam, Kit S.
Art Unit	1641
Examiner Name	Melanie J. Yu
Attorney Docket Number	02307W-131410US

			U.S. PATENT DO		
		Document Number			
Examiner Initials*	Cite No. <sup>1</sup>	Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-5,376,372	12-27-94	Okpanyi et al.	
	2	US-5,650,489	07-22-97	Lam, et al.	
	3	US-5,658,802	08-19-97	Hayes, et al.	
	4	US-6,350,572 B1	02-26-02	Bernards, et al.	
	5	US-6,378,527 B1	04-30-02	Hungerford, et al.	
	6	US-6,570,040 B2	05-27-03	Saxon, et al.	
	7	US-6,716,642 B1	04-06-04	Wu, et al.	
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	FOREIGN PATENT DOCUMENTS								
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PTO/SB/08B (08-03)

Substitute	for form 1449B/PT0	0		Complete if Known		
				Application Number	10/815,468	
			CLOSURE	Filing Date	March 31, 2004	
STAT	EMENT B	YA	PPLICANT	First Named Inventor	Lam, Kit S.	
				Filing Date  First Named Inventor  Art Unit	1641	
(	use as many she	eets a:	s necessary)	Examiner Name	Melanie J. Yu	
Sheet	2	of	3	Attorney Docket Number	02307W-131410US	

		NON PATENT LITERAT	URE DOCUME	NTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTE (book, magazine, journal, serial, symposium	ERS), title of the an	ticle (when appropriate), title of the item e, page(s), volume-issue number(s),	T²
	8	Cass, T. and F.S. Ligler (Eds.), "Immobilized E University Press, 1998	Biomolecules in A	nalysis: A Practical Approach", Oxford	
	9	Aina, O.H. et al., "Therapeutic cancer targeting		· · · · · · · · · · · · · · · · · · ·	
	10	Christ, S. A. et al., "Quality of assurance consi Analysis software." Electrophoresis, 21(5):874	iderations for use I-88 (2000)	of the Fluorimager SI® and FragmeNT	
	11	Falsey, J.R. et al., "Peptide and small molecul functional assays." Bioconjug. Chem., 12(3):3-	le microarray for h 46-53. (2001)	igh throughput cell adhesion and	
	12	Fields, G. B. and R. L. Noble, "Solid phase pe amino acids." Int J. Pept Protein Res. 35(3):16	ptide synthesis ut 51-214 (1990)	ilizing 9-fluorenylmethoxycarbonyl	
	13	Haab, B. B. et al., "Protein microarrays for high and antibodies in complex solutions." Genome	hly parallel detect Biol., 2(2):resea	ion and quantitation of specific proteins rch0004.1-0004.13 (2001)	
	14	Joos, T. O., et al., "A microarray enzyme-linke Electrophoresis, 21(13):2641-50 (2000)	ed immunosorbent	assay for autoimmune diagnostics."	
	15	Kaiser, E. et al., "Color test for detection of fre peptides." Anal. Biochem., 34(2):595-98 (1970)		groups in the solid-phase synthesis of	
	16	Lang, S.H. et al., "Experimental prostate epith dimensional matrigel culture." Cell Growth Diffi	elial morphogene fer. 12(12):631-40	sis in response to stroma and three- (2001)	
	17	Lemieux, G. A. and C.R. Bertozzi, "Chemoseland cells." <i>Trends Biotechnol.</i> , 16(12):506-13	ective ligation rea (1998)	ctions with proteins, oligosaccharides	
	18	Leung, P. S. et al., "Immunization with a xenol conjugate induces antimitochondrial antibodie	biotic 6-bromohex s." J. Immunol., 1	anoate bovine serum albumin 70(10):5326-32 (2003)	
	19	Liu, R. et al., "A novel peptide-based encoding and small molecule combinatorial libraries." J.	Am. Chem. Soc.;	; 124(26):7678-80 (2002)	
	20	Long, S. A. et al., "Immunoreactivity of organic dehydrogenase: connecting xenobiotics with p (2001)	c mimeotopes of t orimary biliary cirrl	he E2 component of pyruvate nosis." J. Immunol. 167(5):2956-63	
	21	MacBeath, G. and S.L. Schreiber, "Printing pridetermination." Science, 289(5485):1760-63 (	oteins as microan 2000)	ays for high-throughput function	
	22	Migliaccio, C. A. et al., "Monoclonal antibodies primary biliary cirrhosis." J. Immunol., 161(10)	):5157-63 (1998)		
	23	Migliaccio, C., et al., "Heterogeneous respons apical staining monoclonal antibodies to pyrus the mimic." <i>Hepatology</i> , 33(4):792-801 (2001)	vate dehydrogena	drial autoantibodies and bile duct se complex E2: the molecule versus	
	24	Miller, J. C., et al., "Antibody microarray profili and identification of potential biomarkers." Pro	ing of human pros oteomics, 3(1):56-	tate cancer sera: antibody screening 63 (2003)	
Examiner Signature			Date Considered		

Substitute	for form 1449B/PT0	)			Complete if Known
		DIO	OL OOUDE	Application Number	10/815,468
			CLOSURE	Filing Date	March 31, 2004
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				Art Unit	1641
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Sheet	3	of	3	Attorney Docket Number	02307W-131410US

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	25	Park, S. et al., "The use of one-bead compound combinatorial library method to identify peptide ligands for a4\$\beta\$1 integring receptor in non-Hodgkin's lymphoma." Lett. Pept. Sci., 8:171-78 (2002)	
	26	Pavlickova, P. et al., "Microarray of recombinant antibodies using a streptavidin sensor surface self-assembled onto a gold layer." Biotechniques, 34(1):124-30 (2003)	
	27	Ponticiello, M.S. et al., "Gelatin-based resorbable sponge as a carrier matrix for human mesenchymal stem cells in cartilage regeneration therapy." J. Biomed. Mater. Res., 52(2):246-55 (2000)	
	28	Radisic, M. et al., "High-density seeding of myocyte cells for cardiac tissue engineering." Biotechnol. Bioeng., 82(4):403-14. (2003)	
	29	Robinson, W. H. et al., "Protein microarrays guide tolerizing DNA vaccine treatment of autoimmune encephalomyelitis." <i>Nat. Biotechnol.</i> , 21(9):1033-39 (2003)	
	30	Robinson, W. H. et al., "Autoantigen microarrays for multiplex characterization of autoantibody responses." Nat. Med., 8(3):295-301 (2002)	
	31	Schweitzer, B. and S.F. Kingsmore, "Measuring proteins on microarrays." Curr. Opin. Biotechnol., 13(1):14-19 (2002)	
	32	Shao, J. and J.P. Tam, "Unprotected peptides as building blocks for the synthesis of peptide dendrimers with oxime, hydrazone, and thiazolidine linkages." <i>J. Am. Chem. Soc.</i> , 117(14); 3893-99 (1995)	
	33	Shin, I. et al., "Chemoselective ligation of acetylated 1-maleimidosugars to peptides for the preparation of neoglycopeptides." Bull. Korean Chem. Soc.; 21(9):845-46 (2000)	
	34	Song, A. et al., "Synthesis of hydrophilic and flexible linkers for peptide derivatization in solid phase." Bioorg. Med. Chem. Lett., 14(1):161-65 (2004)	
	35	Song, A. et al., "A novel and rapid encoding method based on mass spectrometry for "one-bead-one-compound" small molecule combinatorial libraries" J. Am. Chem. Soc., 125(20); 6180-88 (2003)	
	36	Wahl, F. and M. Mutter, "Analogues of oxytocin with an oxime bridge using chemoselectively addressable building blocks." <i>Tetrahedron Letters</i> , 37(38):6861-64 (1996)	
	37	Wilson, D.S. and S. Nock, "Recent developments in protein microarray technology." <i>Angew. Chem. Int. Ed. Engl.</i> , 42(5):494-500 (2003)	
	38	Zhu, H. et al., "Analysis of yeast protein kinases using protein chips." Nat Genet. 26(3):283-89 (2000)	
	39	Zhu, H. et al., "Global analysis of protein activities using proteome chips." Science, 293(5537):2101-05 (2001)	

	Date	Examiner
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